

Who Gets Testosterone? Patient Characteristics Associated with Testosterone Prescribing in the Veteran Affairs System: A Cross-Sectional Study

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J Gen Intern Med 32(10):1075

DOI: 10.1007/s11606-017-4113-z

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In our previous study, we examined whether initiation of testosterone was preceded by appropriate diagnostic evaluation in accordance with clinical guidelines.¹ In contrast, the present study focused on which patient characteristics were associated with testosterone prescribing among those who did not have a classical indication for receiving it.² Thus, these studies looked at two distinct, though related, issues of recommended workup and valid indication, and should not be conflated. It is noteworthy that while Dr. Jackson's seven patients would not have met the criteria in our other paper for completing the full workup prior to starting testosterone, they also would not have met criteria for no workup at all.

It is certainly true that International Classification of Diseases (ICD) diagnosis codes are not always accurately applied and recorded by practicing clinicians.^{3, 4} Though these codes have played a significant role in advancing research and policymaking in general, underreporting of chronic conditions with these codes is common.³ As reported in the limitations section of our paper, we addressed this concern by requiring two ICD-9 codes for confirming the condition. It is also worth remembering that not all ICD codes are created equal in terms of under-coding. Hypogonadism may be under-coded, which is why we did not consider its absence as constituting inappropriate prescribing in the prior paper. However, it would be surprising if a condition as consequential as Klinefelter

syndrome or pituitary adenoma were not accompanied by an ICD code. Therefore, while it may be shocking that 94% of testosterone prescribing in Veteran Affairs (VA) was off-label and possibly not indicated, that does not mean this finding is inaccurate. Our more important findings may be the predictors of testosterone receipt in men without a classical indication for receiving it—most notably obesity, opioid use, diabetes, and depression. This points to the possibility that testosterone is being given for reasons other than simple hypogonadism, at least in part.

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Compliance with Ethical Standards:

Conflict of Interest: Neither of the authors have any conflict of interest.

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